

## ABSTRACT

The disclosed embodiments are a novel and improved method and system that prevents RLP3 from generating unnecessary NAKs, thus preventing unnecessary data frame retransmissions. The disclosed embodiments are efficient, neither delaying the delivery of data frames to the higher data services layer nor delaying the delivery of necessary NAKs to the multiplex sublayer. The disclosed embodiments are implemented with minimal changes to existing RLP3 implementation. The disclosed embodiments utilize a buffering scheme for all incoming traffic. The purpose of this buffering scheme is to reorder the received packets into the order that they were transmitted prior to delivering them to the PPP layer. Received frames are reordered by determining the order that physical layer frames were transmitted by a peer, and by buffering each received frame until all frames transmitted prior to it have been received. The frame reordering is accomplished using timers and a memory buffering mechanism.